

Amendments to the Claims:

This listing of claims will replace all prior versions of claims in the application:

Claims 1-6 (canceled)

Claim 7. (previously presented) A method for fabricating a mixed potential electrochemical sensor for the detection of gases comprising:

forming a wire reference electrode and a wire sensing electrode, each electrode having a first compressed planar section and a second section depending from the first section;

placing the wire electrodes in a die with the second section of each electrode extending axially within the die;

filling the die with an oxide-electrolyte powder;

pressing the powder with the wire electrodes;

removing excess oxide-electrolyte powder to expose the first compressed planar portion of the electrodes;

extending the first portion of the electrodes axially from the pressed oxide-electrolyte powder; and

sintering the wire-electrodes and the pressed oxide-electrolyte powder to form a ceramic electrolyte base with a reference wire electrode and a sensing wire electrode depending therefrom.

Claim 8. (previously presented) The method according to Claim 7, wherein the first compressed planar portion of each electrode is a coil configuration.

Claim 9. (previously presented) The method according to Claim 7, wherein the reference electrode wire is a Pt wire.

Claim 10. (previously presented) The method according to Claim 7, where the sensing electrode wire is selected from the group consisting of Au, Ag, Pd, and Rh.

Claim 11. (previously presented) The method according to Claim 7, wherein the oxide electrolyte powder is $\text{Ce}_{1-x}\text{A}_x\text{O}_{2-x/2}$, where $0 \leq x \leq 0.25$ and A is selected from Y, Sc, or Lanthanide.